



AF/1634
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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:

Franklin H. PORTUGAL

Confirmation No.: 3103

Serial No.: 09/027,439

Examiner: Jehanne Souaya Sitton

Filed: February 20, 1998

Group Art Unit: 1634

Title: COMPOSITIONS AND METHODS FOR DIFFERENTIATING AMONG
SHIGELLA SPECIES AND SHIGELLA FROM E. COLI SPECIES

REPLY BRIEF

MAIL STOP APPEAL BRIEF-PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Examiner's Answer dated April 14, 2004, applicants reply as follows.

The Advisory Action accompanying the Examiner's Answer indicated that the amendments submitted after final will be entered for purposes of the appeal. For this reason, a new Appendix has been provided reflecting the amendments made to the claims.

Of the eight issues specified in the Brief on Appeal, applicants reply as follows:

ISSUES (1) AND (2)

The Examiner's Answer indicates that the objections to the specification and claim 8 have been withdrawn so that Issues (1) and (2) are now moot.

ISSUE (3)

With the entry of the amendments after final, claims 55 and 57 now indicate the probes defined are “isolated” such that the rejection of claims 55 and 57 as defining non-statutory subject matter is moot. Claims 56 and 58 have been amended to clearly define probes consisting of a fragment “from greater than 10 bases in length up to 40 bases in length of a nucleotide sequence.” No evidence has been presented that such fragments exist in nature. These claims satisfy the requirements of 35 U.S.C. § 101 for the reasons set forth in the brief.

ISSUE (4)

The rejection of claims 55–58 under 35 U.S.C. § 112, second paragraph is moot in that the language objected to has been amended.

ISSUE (5)

The rejection of claims 47, 48, 53, and 55–58 as anticipated by Hogan is now moot in that each claim now recites a sequence “completely complementary to said isolated molecule” instead of “capable of base-pairing according to the standard Watson-Crick complementary rules.” Hogan does not anticipate the pending claims in providing only a complementary sequence to a portion of SEQ ID NOS: 3, 4, 5 and 6.

ISSUE (6)

The rejection of claim 54 as allegedly anticipated by Brenner et al. is moot with the amendment made after final.

ISSUE (7)

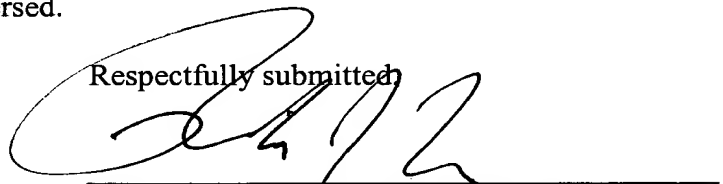
The amendments to claims 47, 48, 53, 55 and 58 define the complements to the SEQ ID now with greater particularity such that there is clearly no basis for finding these claims anticipated by Cilia et al. as discussed in the Brief on Appeal. Applicant's attorney regrets the misnaming of the accession numbers as "Chembank" accession numbers.

ISSUE (8)

The amendments to claims 47, 48, 53, and 55-58 specifically define the segments as "completely complementary." The prior art (Accession No. A14565 and Dyson) clearly does not show or suggest sequences completely complementary to the SEQ ID NOS: 3, 4, 5 and 6 for the reasons discussed in the Brief on Appeal.

For the reasons stated above and in the Brief on Appeal, applicants respectfully request the outstanding rejections be reversed.

Respectfully submitted,



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Attorney Docket No.: CABTECH-2

Date: June 16, 2004



APPENDIX

47. An isolated nucleic acid molecule comprising SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6,

or an RNA equivalent thereof,

or a nucleic acid completely complementary to said isolated molecule.

48. An isolated nucleic acid molecule consisting of

SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6,

or an RNA equivalent thereof,

or a nucleic acid completely complementary to said isolated molecule.

52. The isolated nucleic acid molecule consisting of the nucleotide sequence of SEQ ID NO: 6.

53. An isolated nucleic acid molecule comprising a nucleotide sequence of

SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6,

or an RNA equivalent thereof.

54. An isolated nucleic acid molecule consisting of the nucleotide sequence of SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5 or SEQ ID NO: 6 or an RNA equivalent thereof.

55. An isolated A probe which

a) targets *Shigella flexneri* comprising a fragment from greater than 10 bases in length up to 40 bases in length of a nucleotide sequence SEQ ID NO: 3, an RNA equivalent thereof, or a nucleic acid completely complementary to said fragment

b) targets *Shigella sonnei* comprising a fragment from greater than 10 bases in length up to 40 bases in length of a nucleotide sequence SEQ ID NO: 4, an RNA equivalent thereof, or a nucleic acid completely complementary to said fragment,

c) targets *Shigella dysenteriae* comprising a fragment from greater than 10 bases in length up to 40 bases in length of a nucleotide sequence SEQ ID NO: 5, an RNA equivalent thereof, or a nucleic acid completely complementary to said fragment, or

d) targets *Shigella boydii* comprising a fragment from greater than 10 bases in length up to 40 bases in length of a nucleotide sequence SEQ ID NO: 6, an RNA equivalent thereof, or a nucleic acid completely complementary to said fragment,.

56. A probe which

a) targets *Shigella flexneri* consisting of a fragment from greater than 10 bases in length up to 40 bases in length of a nucleotide sequence SEQ ID NO: 3, an RNA equivalent thereof, or a nucleic acid completely complementary to said fragment,

b) targets *Shigella sonnei* consisting of a fragment from greater than 10 bases in length up to 40 bases in length of a nucleotide sequence SEQ ID NO: 4, an RNA equivalent thereof, or a nucleic acid completely complementary to said fragment,

c) targets *Shigella dysenteriae* consisting of a fragment from greater than 10 bases in length up to 40 bases in length of a nucleotide sequence SEQ ID NO: 5, an RNA equivalent thereof, or a nucleic acid completely complementary to said fragment, or

d) targets *Shigella boydii* consisting of a fragment from greater than 10 bases in length up to 40 bases in length of a nucleotide sequence SEQ ID NO: 6, an RNA equivalent thereof, or a nucleic acid completely complementary to said fragment.

57. A probe as in claim 55 which is 15-25 bases in length.

58. A probe as in claim 56 which is 15-25 bases in length.